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60,130-1899; 03MRA0388

UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kramer
Serial No.: 10/715,051
Filed: 11/17/2003
Examiner: Burch, Melody M.
Art Unit: 3683
Title: Force Sensor For Vehicle Brake Application

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

AMENDMENT

Dear Sir:

In response to the office action of 14 December 2004, please amend the above-identified application as follows:

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REMARKS

Applicant appreciates the indication of allowability with regard to a number of the claims. However, reconsideration of the rejection of the other claims is requested. In particular, independent claim 1 requires that the force sensor communicates a signal to an electronic control for an adjusting mechanism. The adjusting mechanism adjusts the location of the pistons to take up clearance with wear in the brake pad, after application of braking force by the actuation mechanism. Adjustment mechanisms are known, as is set forth in the Background of the Invention section of this application. However, with the electronic adjustment mechanisms that are now being utilized, there has never been a force sensor incorporated into the brake that provides an indication of when the braking force occurs. This provides a more precise adjustment.

The Carre, et al. reference cannot meet this limitation. Further, new dependent claim 21 adds further detail to claim 1 with regard to how the adjustment mechanism utilizes the information from the force sensor. Carre, et al. does not utilize its sensor for an adjustment purpose. Again, Carre, et al. cannot meet the limitations of the claims. While the examiner also proposes to combine Ward with Carre, et al., the above deficiency is still not overcome.

The examiner also combines the Carre, et al. reference with the Ward reference and with the Oreper, et al. patent to reject claim 7, and independent claim 10. Oreper, et al. discloses a pressure sensor that has no tie at all to a braking mechanism. There is no suggestion to apply such a mechanism into the Carre, et al. sensor. The Carre, et al. device has a force sensor for a particular reason. The Carre, et al. force sensor would not benefit by having the variable resistance, regardless of what might be disclosed by Oreper, et al. Simply, this combination is based solely on hindsight.